Note to Readers: If you need assistance accessing items in this Supplemental Material, please contact ehp508@niehs.nih.gov. Our staff will work with you to assess and meet your accessibility needs within 3 working days.

Table of Contents for Supplemental Material

Biased Exposure—Health Effect Estimates from Selection in Cohort Studies: Are Environmental Studies at Particular Risk?

Marc G. Weisskopf, David Sparrow, Howard Hu, and Melinda C. Power

Methods

Details of inverse probability weighting

- **Table S1.** Variables used in forward selection logistic regression model to calculate inverse probability of attrition weights (IPW).
- **Table S2**. Variables included in the final inverse probability of attrition weighting model.
- **Table S3.** Characteristics at the time of bone lead measurement among all those with bone lead measurement (N=835).
- **Table S4.** Fully adjusted^a hazard ratios (95% confidence intervals) for all-cause, cardiovascular disease, and ischemic heart disease mortality, by tertile^b of patella lead at baseline among white men in the Normative Aging 45 years old or younger at NAS study entry (N=637), and applying inverse probability of attrition (IPW) weights truncated at the 1st and 99th percentile of the distribution of the IPW weights.
- **Table S5.** Adjusted hazard ratios (HR; 95% CI) for all-cause, cardiovascular disease, and ischemic heart disease mortality, by tertile^b of blood lead at baseline among either all white men in the Normative Aging Study (N=1,206), or those 45 years old or younger at NAS study entry (N=909).
- **Table S6.** Adjusted hazard ratios (HR; 95% CI) for all-cause, cardiovascular disease, and ischemic heart disease mortality, by tertile of tibia lead at baseline among either all white men in the Normative Aging Study (N=834), or those 45 years old or younger at NAS study entry (N=636).

Figure S1. Nonlinear association between patella bone lead concentration and the log of HR (logHR) for all-cause, cardiovascular, and ischemic heart disease adjusted for age at KXRF, age at KXRF squared, smoking (never/former/current & packyears), and education among all white men (n=835) (Model 1: Base Model). The reference logHR=0 is at the mean of patella lead concentration. The estimates are indicated by the solid line and the 95% CIs by the dashed lines. The *P* values for significance of the nonlinear component for all-cause, cardiovascular, and ischemic heart disease mortality were 0.39, 0.54, and 0.64, respectively. Patella lead concentrations of all individual participants are indicated by short vertical lines on the x-axis.

Figure S2. Nonlinear association between patella bone lead concentration and the log of HR (logHR) for all-cause, cardiovascular, and ischemic heart disease adjusted for age at KXRF, age at KXRF squared, smoking (never/former/current & packyears), and education among white men 45 years old or younger at NAS entry (n=637) and with inverse probability weighting to weight the analyses to reflect the full group still alive at the time of KXRF (Model 4). The reference logHR=0 is at the mean of patella lead concentration. The estimates are indicated by the solid line and the 95% CIs by the dashed lines. The *P* values for significance of the nonlinear component for all-cause, cardiovascular, and ischemic heart disease mortality were 0.48, 0.91, and 0.28, respectively. Patella lead concentrations of all individual participants are indicated by short vertical lines on the x-axis.